

We Claim:

1 1. A ball tossing apparatus, comprising:

2 a support frame; and

3 a plurality of launch devices fixed to said support frame, said launch devices arranged

4 in a two-dimensional array.

1 2. A ball tossing apparatus according to Claim 1, wherein at least one of said launch

2 devices comprises:

3 a biasing member for projecting said ball from said launch device; and

4 a release device for retaining said biasing member in a loaded position, and for

5 releasing said biasing member to project said ball.

1 3. A ball tossing apparatus according to Claim 2, wherein said biasing member

2 comprises at least one spring.

1 4. A ball tossing apparatus according to Claim 3, wherein said at least one launch device

2 comprises a cylinder having a coil spring disposed therein.

1 5. A ball tossing apparatus according to Claim 4, wherein said at least one launch device

2 further comprises a carrier coupled to said coil spring.

1 6. A ball tossing apparatus according to Claim 5, wherein each said carrier further
2 includes at least one engaging structure adapted to engage said release device.

1 7. A ball tossing apparatus according to Claim 6, wherein said carrier further includes a
2 plurality of said engaging structures, thereby facilitating multiple loaded positions of said carrier.

1 8. A ball tossing apparatus according to Claim 4, wherein said at least one launch device
2 further includes a cup, having a conical interior surface, coupled to said coil spring for carrying
3 balls of varying diameters.

1 9. A ball tossing apparatus according to Claim 8, wherein said conical interior surface of
2 said cup comprises a plurality of stepped rings.

1 10. A ball tossing apparatus according to Claim 1, wherein said launch devices are
2 disposed to launch said balls substantially vertically.

1 11. A ball tossing apparatus according to Claim 1, wherein said support frame includes a
2 top deck defining openings through which said balls are projected.

1 12. A ball tossing apparatus according to Claim 11, wherein said launch devices are
2 disposed below said top deck at least when in a loaded position.

1 13. A ball tossing apparatus according to Claim 11, wherein said support frame further
2 includes a base and sides, said base and sides together with said top deck defining an interior of
3 said support frame, at least a portion of which is adapted for ball storage.

1 14. A ball tossing apparatus according to Claim 11, wherein said top deck is rectangular.

1 15. A ball tossing apparatus according to Claim 1, further comprising a handle, coupled
2 to said support frame, to facilitate transportation of said ball tossing apparatus.

1 16. A ball tossing apparatus according to Claim 1, wherein said support frame is
2 recessed in a floor of a permanent structure.

1 17. A ball tossing apparatus according to Claim 1, wherein said support frame includes
2 indicia of a baseball home plate.

1 18. A ball tossing apparatus according to Claim 17, wherein the position of said indicia
2 is adjustable.

1 19. A ball tossing apparatus according to Claim 1, further including an electronic control
2 system comprising:

3 a processing unit for executing data and code; and

4 memory for storing data and code, said code including a launch module for

5 sequentially activating said plurality of launch devices.

1 20. A ball tossing apparatus according to Claim 19, further including a user interface for
2 receiving input from a user.

1 21. A ball tossing apparatus according to Claim 20, wherein said user interface
2 comprises a keypad.

1 22. A ball tossing apparatus according to Claim 20, wherein said user interface
2 comprises a remote control, whereby said balls may be sequentially launched remotely.

1 23. A ball tossing apparatus according to Claim 20, wherein said launch module,
2 responsive to instructions from a user, is operative to execute one of a plurality of predetermined
3 launch sequences.

1 24. A ball tossing apparatus according to Claim 20, wherein said launch module,
2 responsive to instructions from said user, is operative to receive and store a launch sequence
3 input by said user.

1 25. A ball tossing apparatus according to Claim 24, wherein said launch module,
2 responsive to instructions from said user, is operative to execute said launch sequence input by
3 said user.

1 26. A ball tossing apparatus according to Claim 20, wherein said code further includes a
2 random sequence generator operative to generate a random launch sequence.

1 27. A ball tossing apparatus according to Claim 19, wherein said code further includes at
2 least one predefined launch sequence.

1 28. A ball tossing apparatus according to Claim 19, wherein said code further includes a
2 random sequence generator for generating a random launch sequence.

1 29. A ball tossing apparatus according to Claim 28, wherein:
2 said code further comprises at least one predefined launch sequence; and
3 said control system further includes a user interface to enable a user to select
4 between a predefined launch sequence and a random launch sequence.

1 30. A ball tossing apparatus according to Claim 29, wherein said user interface further
2 enables said user to input a launch sequence.

1 31. A ball tossing apparatus according to Claim 19, wherein:
2 said control system further includes a user input device for receiving launch
3 instructions from a user; and
4 said launch module responsive to each received launch instruction is operative to
5 activate a single one of said launch devices.

1 32. A ball tossing apparatus according to Claim 31, wherein said launch module
2 responsive to each subsequently received launch instruction is operative to activate a next one of
3 said launch devices according to a predetermined launch sequence.

1 33. A ball tossing apparatus according to Claim 31, wherein said launch module
2 responsive to each subsequently received launch instruction is operative to activate a next one of
3 said launch devices depending on a value of said subsequently received launch instruction.

1 34. A method for sequentially launching a plurality of balls, said method comprising:
2 loading said plurality of balls into a corresponding plurality of launch devices
3 arranged in a two-dimensional array; and
4 launching said balls according to a launch sequence.

1 35. A method for sequentially launching a plurality of balls according to Claim 34,
2 wherein said step of loading said plurality of balls includes loading each of said balls in one of a
3 plurality of loaded positions, each of said loaded positions corresponding to a different launch
4 height.

1 36. A method for sequentially launching a plurality of balls according to Claim 34,
2 wherein said step of launching said balls includes selecting said launch sequence.

1 37. A method for sequentially launching a plurality of balls according to Claim 36,
2 wherein said step of selecting said launch sequence includes receiving said launch sequence from
3 a user.

1 38. A method for sequentially launching a plurality of balls according to Claim 37,
2 wherein said step of receiving said launch sequence from said user includes storing said launch
3 sequence for later retrieval.

1 39. A method for sequentially launching a plurality of balls according to Claim 37,
2 wherein said step of selecting said launch sequence includes generating a random launch
3 sequence.

1 40. A method for sequentially launching a plurality of balls according to Claim 36,
2 wherein said step of selecting said launch sequence includes retrieving a predefined launch
3 sequence from a plurality of predefined launch sequences.

1 41. A method for sequentially launching a plurality of balls according to Claim 40,
2 wherein said step of retrieving a predefined launch sequence from memory includes retrieving a
3 predefined launch sequence previously input by a user.

1 42. A method for sequentially launching a plurality of balls according to Claim 34,
2 wherein said step of launching said balls further includes, launching each of said balls upon
3 receipt of a separate user input launch instruction.

1 43. A method for sequentially launching a plurality of balls according to Claim 42,
2 wherein said launch instructions are generated remotely.

1 44. A method according to Claim 34, wherein said launch sequence is determined
2 according to values of user input launch instructions received prior to the launch of each of said
3 balls.

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1 45. A computer-readable medium having code embodied therein for causing an
2 electronic device to perform the method of Claim 34.

1 46. A computer-readable medium having code embodied therein for causing an
2 electronic device to perform the method of Claim 35.

1 47. A computer-readable medium having code embodied therein for causing an
2 electronic device to perform the method of Claim 36.

1 48. A computer-readable medium having code embodied therein for causing an
2 electronic device to perform the method of Claim 37.

1 49. A computer-readable medium having code embodied therein for causing an
2 electronic device to perform the method of Claim 38.

1 50. A computer-readable medium having code embodied therein for causing an
2 electronic device to perform the method of Claim 39.

1 51. A computer-readable medium having code embodied therein for causing an
2 electronic device to perform the method of Claim 40.

1 52. A computer-readable medium having code embodied therein for causing an
2 electronic device to perform the method of Claim 41.

1 53. A computer-readable medium having code embodied therein for causing an
2 electronic device to perform the method of Claim 42.

1 54. A computer-readable medium having code embodied therein for causing an
2 electronic device to perform the method of Claim 43.

1 55. A computer-readable medium having code embodied therein for causing an
2 electronic device to perform the method of Claim 44.

1 56. A ball tossing apparatus comprising:
2 a plurality of ball launch devices arranged in a two-dimensional array; and
3 means for sequentially activating said launch devices.